

**Regional E-Waste Strategy**

**March, 2017**

**Developed By:**

**Regional E-Waste Management Steering Committee**

**under**

**Working Group 10: Environment and E-Waste  
Management**

## **EXECUTIVE SUMMARY**

### **About this report**

This report presents the Regional E-Waste Management Strategy for the EACO and its member states. The strategy spells out the priority e-waste management strategies along with specific actions to help actualize them. The strategy estimates the size of investment required to execute the EACO Regional e-Waste Management strategy, the targeted potential sources of funding as well as capacity building measures needed to warrant sustainable mobilization of resources to finance the strategy. The strategy further highlights the key target outcomes and the indicators, which will assist in measuring success of implementation of the plan. The roles and responsibilities of the various stakeholders in executing the strategy are also highlighted.

The EACO Regional e-Waste Management Strategy is a five year plan covering the period 2017/18 to 2021/22 however; its vision aspiration spans a medium to long term period of at least 20 years. This strategic direction is pertinent to align the short to medium term interventions to perspective plan for e-waste. This strategy is to be used along with other strategic documents guiding priorities of EACO.

### **Background to the strategy**

The EACO regional e-waste management strategy has been developed on backdrop of the e-waste challenges posed by the rapid diffusion of information and communications technologies (ICTs) in economies of EACO member states. This challenges range from increasing stock piles of e-waste in the region to potential environment and health problems associated with e-waste. Another key factor driving the formulation of EACO Regional e-Waste Management strategy is the need to build the capacity of EACO and member states in sustainable collection and management of e-waste.

There are a number of initiatives leading to the development of the EACO e-Waste management Strategy. Below is a synthesis of some of the key events and initiatives leading to the formulation of strategy.

- EACO member state e-waste readiness assessment – most EACO members have carried out rapid e-waste status surveys and established the baseline for selected indicators.

- The establishment of the EACO regional e-waste management steering committee and taskforce within the ambit of the EACO working group 10. The steering committee is enabled prioritization of e-waste management activities and their mainstreaming within EACO.
- Establishment of national e-waste management steering committees and/or e-waste management technical working teams

These and other initiatives paved way for the development of the EACO e-waste management strategy whose major aim is to consolidate all these efforts into a single policy document – a document that ought to provide the strategic direction for e-waste management in EACO member states.

### **Strategic Direction**

The strategy charts the aspiration, goals and building blocks for developing the EACO resource mobilization strategy. These are as follows:

The Vision of the Strategy resonates towards ***“Zero negative impact of e-Waste in EACO member states by 2030”***.

The goal of the strategy is to ***“achieve a sustainable e-waste management system in the EACO member states”***.

In order to realize the above goal and steadily move towards attaining the vision aspiration; the following strategies have been prioritized:

- (i) Strengthen the policy, legal and regulatory framework for sustainable resourcing of e-waste management activities for effective protection of human health and environment within the region
- (ii) put in place the requisite e-waste management infrastructure and rationalize its distribution across EACO member states to harness unique value and enhance synergy
- (iii) Establish mechanisms for comprehensive and sustainable mobilization for e-waste management resources (physical, financial and human resources).
- (iv) Strengthen EACO e-waste coordination structures at regional and national levels
- (v) Promote research and innovation in e-waste management

- (vi) Put in place a monitoring and evaluation mechanism for e-waste management
- (vii) Capacity Building and Awareness creation for e-waste management in EACO member states

These strategies resonates the resolve by EACO member states and their partners to address the identified e-waste management constraints, especially in unlocking the binding constraints on inadequate capacity to mobilize adequate resources on sustainable basis to address fund e-waste management priorities. The strategies and their corresponding actions address the binding constraints identified in each of five strategic areas of intervention/ themes, namely:

- i. Policy, Legal and Regulatory framework
- ii. Infrastructure for e-waste management
- iii. Resource mobilization
- iv. Coordination, institutional alignment
- v. Research, Monitoring, Evaluation and Capacity building

The strategic measures and actions to help actualize the identified resource mobilization strategies for e-waste are as summarized in the Table below:

**Table 1: Mapping the strategic actions to strategies and pillars**

<b>Pillar</b>	<b>Strategies</b>	<b>Strategic Actions</b>
<b>1. Policy, Legal and regulatory frameworks</b>	1.1 To harmonize policy legal and regulatory framework for e-waste management in the EACO member states	1.1.1 Review existing Policy, laws, standards and guidelines for e-waste management in EACO member states to identify gaps
		1.2.1 Develop Regional e-waste policy, guidelines, laws, regulations and standards to act as model guiding national strategies.
		1.1.3 Disseminate regional e-waste management policy, guidelines and standards to cater for the uniqueness of e-waste in EACO member states

		1.1.4 Facilitate the adoption and entrenchment of regional e-waste policy, guidelines and standards.
		1.1.5 Advocate for alignments of national policies, guidelines and standards to developed regional policies, standards and guidelines
<b>2. Requisite Infrastructure for E-waste Management</b>	2.1 To ensure rationalization of e-waste management infrastructure in the EACO member states	2.1.1 Conduct baseline survey on E-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states
		2.1.2 Conduct an E-waste management infrastructure requirements analysis for the EACO member states
		2.1.3. develop an e-waste management infrastructure roll out plan
		2.1.4 Put in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection etc
		2.1.5 Facilitate the development of a regional modern dismantling and recovery facility within the EACO member states
<b>3. Resource</b>	3.1 Put in place a	3.1.1 Develop a Resource Mobilization Strategy

<b>mobilization</b>	comprehensive Resource Mobilization mechanism for e-waste management	for effective implementation of EACO e-Waste Management Strategic Plan
		3.1.2 Streamline funding mechanisms for e-waste management
		3.1.3 Engage EEE producers/retailers in strategic partnerships including financing the e-waste collection, transportation and treatment through the extended producer responsibility and advanced recycling fee
		3.1.4 Conduct a feasibility study for the establishment of EACO e-waste fund.
		3.1.5 Set up an EACO e-waste fund which will collect EPR fees, ARF individual and corporate contributions etc
		3.1.6 Engage regional and international organizations such as UNIDO, ITU, STEP, UNEP, World Bank, UNU, GIZ, Basel convention, etc for resource mobilization.
<b>4. Institutional coordination and alignment</b>	4.1 Strengthen EACO e-waste coordination structures at regional and national levels	4.1.1 Support the operations and functions of the Regional Steering Committee for effective coordination of the implementation of Regional e-Waste Strategic plan
		4.1.2 Establish collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
		4.1.3 Support the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), to

		enhance producer participation in e-waste management
		4.1.4 Establish proper mechanisms for sharing experience and knowledge on E-waste management
		4.1.5 Develop a communication and stakeholder engagement strategy on e-waste management
		4.1.6 Engage with key stakeholders such as Government, Academia, private sector, civil society and development partners to foster mainstreaming of e-waste management within their policies, work plans and budgets
<b>Pillar 5: Research, Monitoring and Evaluation and Capacity building</b>	1.1 Promote research and innovation in e-waste management	5.1.1 Conduct studies and baseline surveys on E-waste
		5.1.2 Organize annual e-waste management innovation contests/ awards
		5.1.3 Collaborate with research institution to promote research and innovation on e-waste
		5.1.4 Mainstream e-waste issues in educational curriculum at various levels especially in technical school
	1.2 Put in place a monitoring and evaluation mechanism for e-waste management	5.1.1 Collaborate with stakeholders to establish and maintain a data base for e-waste generations/ volumes
		5.1.2 Develop and implement a participatory monitoring and evaluation framework
		5.1.3 Conduct midterm review and final evaluation of the regional e-waste management strategy

		5.1.4 Support monitoring and evaluation for national e-waste management initiatives in member states
	1.3 Capacity Building and Awareness creation for e-waste management in EACO member states	5.1.5 Raise comprehensive awareness about e-waste and its management
		5.1.6 Build capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.
		5.1.7 Undertake e-waste awareness campaigns in all member states targeting the general public, technical staff and local leaders
		5.1.8 Networking with partner organizations through stakeholder meetings and dialogues
		5.1.9 Engage producers/retailers of EEE to participate in e-waste awareness campaigns
		5.1.10 Participate in regional and international fora on best practices in e-waste management
		5.1.11 Develop information, education and communication (IEC) packages for each stakeholder category

### Implementation plan

The strategy recognizes that effective execution, the relationships of key stakeholders need to be well coordinated and managed primarily through strengthening of the e-waste coordination mechanisms at regional and national levels. Other mechanisms includes

- (i) putting in place a platform for continuous engagement with different stakeholder categories, including potential and existing financials, policy makers, legislators and e-waste producers;
- (ii) Support the operations and functions of the Regional Steering Committee for effective coordination of the implementation of Regional e-Waste Strategic plan



- (iii) Establish collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
- (iv) Support the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), to enhance producer participation in e-waste management
- (v) Capacity Building and Awareness creation for e-waste management in EACO member states

### **Cost implications**

The resource requirement for executing the resource mobilization strategies and interventions identified in this plan were estimated. The need for costing of the strategies was to identify the size of investment needed to bring out target resource mobilization outcomes. That is, the 'seed money' and other resources required to build the capacity of EACO to sustainably mobilize resources to finance her resource mobilization priorities. The total size of required investment in the next five years is estimated at USD 1,680,000, which translates into an average of USD 33,600 per annum. When these resources are timely available, effectively allocated, released and utilized; they can be able to generate an e-waste investment portfolio in the Region.

### **Financing plan**

The major sources of investment in EACO e-waste management have been categorized identified to include the following:

1. Development Partners,
2. Innovative measures e-Waste stakeholders such as the EPR, ARF
3. Contributions from Governments of Member States
4. Corporations and Private sector
5. Local/community contribution – although Local authorities are already constrained in collecting solid wastes and e-waste is not seen as a priority, it can be an importance source of revenues for e-waste management when well implemented.

In order to better manage the resources pooled together to submit e-waste management initiatives at national and regional level, the following additional measures were recommended in the EACO Regional e-waste management strategy.

- a. Creation of e-waste fund – an e-waste fund is anticipated to be a contributory fund for financing priority regional e-waste infrastructure. The fund may be replenished by contributions by development partners, private sector, producers and government. A feasibility study will be conducted to advise on the institutional coordination framework as well as financial model for the fund.
- b. Mainstreaming of e-waste management in various implementing MDA and other stakeholders' budgets is critical.

### **Target results/outcomes**

The overall impact of the e-waste management strategy is to contribute towards:

- i. Improvement in standard of living reflecting both the number of green jobs created and size of tax income to government contributed by scheme operators
- ii. Reduction of negative e-waste impacts on public health measured by percentage reduction in diseases related to e-waste and
- iii. Reduction of negative impacts of e-waste on the environment as reflected in percentage reduction green emissions

The interim results – outcome and output indicators will include but not limited to the following:

1. Increase in Number of Member states adopting regional e-waste standards and No of member states whose e-waste management policies and laws are harmonized
2. Availability of regional e-waste management policy and guidelines
3. Number of e-waste infrastructure developed at regional level
4. Number of e-waste infrastructure established in member states
5. Number of development partners attracted in e-waste
6. Percentage increase in e-waste management budget

7. Number of Innovative E-waste funding mechanism such as EPR, ARF and e-Waste Fund established
8. % Functionality of EACO structures responsible for e-waste (WG 10, Steering Committee etc)
9. % Increase in public awareness about e-waste
10. % Adoption to sound e-waste management practices

Development of a comprehensive Monitoring and Evaluation System has been identified as one of the core strategies for successful monitoring of the implementation and evaluation of the impact of the e-waste strategy. Underscoring this M&E system is the need for an intensive surveillance, inspection, monitoring, and reporting on performance of the strategy. The E-waste strategy shall also be subjected to a midterm review after two and half years and a terminal evaluation after the fifth of its implementation.

### **Communication and advocacy**

In order to facilitate effective implementation, comprehensive awareness of the EACO member e-waste management priorities will be done. To this end, the EACO regional e-Waste Management strategy will be widely disseminated to ensure that all key stakeholders are aware of the strategy and have been effectively mobilized to support its implementation. One way to achieve this is the development and execution of a comprehensive communication, advocacy and change management strategy. This will identify which stakeholders to sensitize, the appropriate message, media and frequency of interaction. It will be preceded by thorough mapping of stakeholders based on their interests, powers and authorities in relation to the project.

# East Africa Communications Organization

(EACO)

## Regional E-Waste Strategy

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## **CHAPTER 1: INTRODUCTION AND BACKGROUND**

### **1.1 Introduction**

The Regional e-waste management strategy has been developed with the overarching goal of attaining a sustainable e-waste management system in the EACO member states. To achieve the above goal, strategic interventions will be done in the following strategic areas; Policy, Legal and Regulatory framework, E-waste management Infrastructure, Coordination and Institutional Alignment, Resource Mobilization and Research, Capacity building and Innovation.

The strategy will guide strategic interventions in e-waste management for the next five years within EACO region as well as the member states. The strategic plan indicates the priority interventions, actions as well as institutional arrangements for effective coordination of the plan.

### **1.2 Background**

E-waste is considered as one of the fastest growing waste in the world, and yet also toxic and non-biodegradable. E-waste is growing at 3 times (3\*) the rate of municipal waste worldwide. This is nearly the same amount as all plastic packaging, although it is much more hazardous. In East Africa, the estimated volume of e-waste is not known, as there is very little statistics.

Holistically, the increased number of e-waste volumes results from the increasing market penetration of electronic use in developing countries, and the increase in replacement market due to technology advancement in the developed countries. The East African region has also suffered from the importation of used or obsolete EEE under the name of donations, as well as the prohibitive prices for acquisition of new EEE. There is therefore a high demand for used products that have a short life span and easily find their way to the waste streams in short time.

EEE are composed of various components, i.e. hazardous and nonhazardous materials. The hazardous materials include; Lead, Barium, Mercury, Nickel, Cadmium, Lithium etc. Components such as Lead and Mercury contaminate the soil and water when disposed of in the landfills with other waste. These hazardous components are also listed as human carcinogens as they damage the lungs and liver when eaten or inhaled.

The valuable materials in electronic products include the precious metals- (Gold, Tantalum, Silver etc), while the nonhazardous components are; plastics, Copper etc. Recycling of the precious metals conserves these valuable materials as they are rare earth minerals. Recycling also prevents air and water pollution likely to result from the extraction of new mineral from the earth as well as reduction on greenhouse gas (GHG) emissions. Recovery of these precious metals may pose a positive impact to both the environment as well as socio-economic development issues.

The past decade has seen a tremendous increase of Electrical and Electronic Equipment (EEE) in EACO member states at government level, private sector as well as at individual level. This increase has been made possible by enabling factors such as; the elimination of trade barriers in importation of ICT equipment, liberalization of the telecommunications sectors that has increased use of mobile phones, fax and telephones; and the development of e-initiatives to improve service delivery.

The EACO Member States comprises of five countries (Burundi, Kenya, Rwanda, Tanzania and Uganda) with an estimated population of 152 million (June 2015). Country specific population is given in the summary below as well as the bar graph in figure 1 below.

COUNTRY	POPULATION REPRESENTATION
KENYA	44234000
TANZANIA	48829000
UGANDA	34856183
RWANDA	12687873
BURUNDI	11167734

**“The lowest amount of e-waste per inhabitant was generated in Africa, where only 1.7 kg/ inhabitant were generated in 2014 (UNU 2014.”** This shows correlation between the population and the e-waste generated.

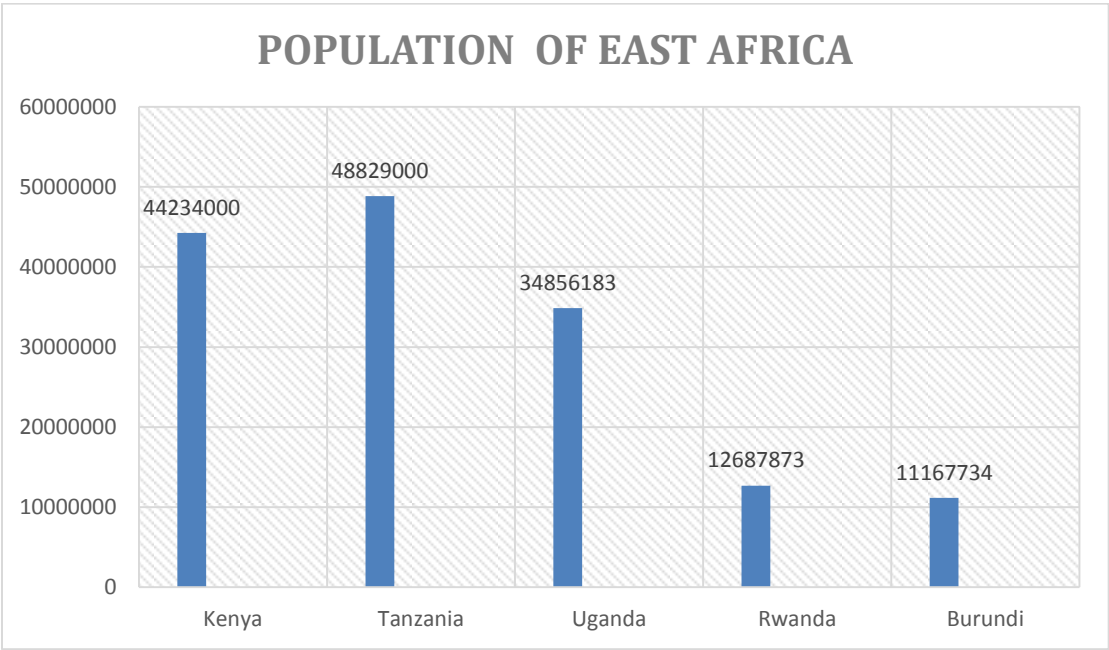


Figure 1: Population of EACO Member states by country (June 2015)

Whilst much mention has been on the increasing investments in the ICTs because of its enormous advantages, it is also important to adequately reflect end of life (EOL) of such equipment, hence mention of electronic waste (e-waste) or waste electrical and electronics equipment (WEEE).

The information and communications technology (ICT) sector has been the major driver of economic growth in East Africa over the last decade, growing on an average of more than 15% for each EAC country. To date, growth has largely come from innovation by large multinational and local enterprises. However, this rapid growth of ICT and economy has contributed to massive generation of electrical and electronic waste commonly known as E-waste where, an estimated 50 million tons of E-waste is now generated worldwide every year, with most of this heading to developing countries including EACO Member States for reuse and disposal. E-waste poses both challenges and opportunities for EACO member states. Such challenges include: Environmental, safety and public health. On the other hand e-waste presents opportunities for EACO member states and business enterprises such as green job creations, recovery of valuable materials and environmental protection.

It is against this background that EACO is developing a five-year Regional E-Waste Management Strategy for its member states. The strategy will help to sustainably and productively address the E-Waste problem in the Member States.

### **1.3 Definition of Electrical and Electronic Equipment (EEE)**

EEE (Electrical and Electronic Equipment) is equipment dependent on electric currents or electromagnetic fields for its function and also equipment for the generation, transfer and measurement of such currents and fields. Equipment of both household and industrial usage are included in EEE.

**Definition of Waste Electrical and Electronic Waste (WEEE) – E-waste:** E-waste is a term used to cover all items of electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of reuse” (Step Initiative 2014). Thus, E-waste is simply 'discarded EEE'



## **1.4 Rationale (The need for a Regional e-Waste Management Strategy)**

EACO is developing the e-waste strategy to address some of the challenges that arise from the rapidly growing of e-waste stream in member states. The challenges include:

- i) Rapidly increasing e-waste volumes from imports of electrical and electronic equipment and regional generated e-waste
- ii) Low level of awareness amongst key stakeholders that include users and consumers of the electronic and electronic equipment on the recommended standards for EEE, the hazardous nature or toxicity of e-waste and effects of incorrect e-waste disposal/management.
- iii) Lack of appropriate infrastructure and technical capacity to handle, treat and dispose e-waste generated along the entire chain from collection, sorting, transportation, reusing, dismantling, treatment, recycling and final disposal
- iv) Gaps in existing legal framework for e-waste management to address the uniqueness of e-waste
- v) Existing e-waste recycling and disposal practices are largely informal in member states, with inappropriate techniques applied for treatment and disposal
- vi) Lack of incentives for consumers and enterprises to hand out obsolete EEE, or voluntary take back systems for end of life equipment
- vii) Lack of accurate estimates of the quantity of e-waste generated and recycled in to inform e-waste management interventions.
- viii) Limited resources in place for e-waste management, and profitable e-waste investments, including financial, human and e - waste handling infrastructure and/or treatment facility.

## **1.5 Guiding Principles**

The following will be the guiding principle of this strategy;

- i. Participatory and inclusive – drawing participation of all key stakeholders involved in e-waste management value chain both at the national and regional (EACO) levels.
- ii. Alignment with policy, legal and institutional framework for the EAC

- iii. Consistent with national, regional and global development agenda. The strategy should be aligned to global development agenda such as the Sustainable Development Goals (SDGs) and cater for development strategies of the member states
- iv. Equitable distribution of initiatives across the region
- v. Collaborative framework and public private partnership (PPP)

## **1.6 The Process of developing a strategy**

Drafting of the strategic plan was undertaken by a taskforce of five (5) Members drawn from the EACO Regional e-waste management committee. The following processes were followed by the taskforce in developing the Draft Strategy, which was subjected to EACO approval and adoption processes.

- 1) Desk review analysis and assessment - this was carried out to provide an understanding of the current internal and external factors influencing e-waste in EACO Member States and the estimated volumes of e-waste generation
- 2) Planning retreat – a five (5) strategic planning retreat was held for members of the taskforce through which a Draft Strategic plan was produced to help generate stakeholder inputs.
- 3) Stakeholder consultation - a series of activities were arranged to facilitate stakeholder consultations and engagements. These included regional e-waste steering committee meeting, working group 10 meeting etc.
- 4) Endorsements and approvals – the draft strategy goes through EACO structures including Assemblies and the Congress

## **CHAPTER II: SITUATIONAL ANALYSIS**

### **2.1 Global Outlook on e-waste**

E-waste is one of the fastest growing waste streams in the world. In developed countries, it is estimated at 1% of total solid waste on an average [UNU 2014 – The Global e-waste monitor], with United States and Europe being the leading region in generating e-waste.

E-waste is mounting exponentially because of the rapid product innovation and the inclination of people towards technology and electronic gadgets and home appliances like migration from analogue to digital technologies and to flat-screen televisions and monitors. Additionally, economic growth coupled with urbanization and industrialization, and mass production of electronic goods have led to price reduction of these goods, almost doubling the universal demand for such products which eventually turn into e-waste.

The forecast, based on data gathered by United Nations organizations, governments, and nongovernment and science organizations in a partnership known as the "Solving the E-Waste Problem (StEP) Initiative," predicts e-waste generation will swell by a third in the next five years.

Up to 90% of the world's e-waste, worth nearly \$19bn (£12bn), is illegally traded or dumped each year, according to the UN Environment Programme (UNEP). Computers and smart phones are among the ditched items contributing to this 41m tonne e-waste mountain, which could top 50m tonnes by 2017. The developing regions; African and Asia are turning into illegal e-waste hubs, bypassing the legitimate global waste and recycling market that is thought to be worth \$410bn a year. Countries are also losing out on significant amounts of resources, such as rare earth metals, copper and gold, while the conditions in which the products are dumped can be extremely hazardous to health. On the other hand China is the importer of e-waste in the world.

E-waste, is as much an emerging problem as well as a business opportunity of increasing significance, given the volumes of e-waste being generated and the content of both toxic and valuable materials in them. EEE contains gold, silver, palladium, lithium, ruthenium, antimony, indium and tin, among other rare metals [b-UNEP, 2013]. The case is often made that per every ton of ore at a gold mine only 5g of gold can be extracted, whereas 1ton of mobile phones can contain up to 400g of gold [b-SMG, 2009]. As primary materials are increasingly more difficult and expensive to extract, recycling becomes an attractive option. According to a new market research report, Global e-waste Management Market (2011-2016), the revenue generated from the e-waste management market is expected to grow from \$9.15 billion in 2011 to \$20.25 billion in 2016 at a rate of 17.22 percent.

Until now, comprehensive data on global e-waste has been hard to come by, and countries define e-waste very differently. For example, the United States only includes consumer electronics such as TVs and computers, whereas European nations include everything that has a battery or power cord in the e-waste category. A study on e-waste management by EMPA and UNIDO in the East African region also focused on computers only. The East African region does not also have a specific definition of e-waste.

Manifold are the reasons why countries should establish or reinforce their e-waste management national systems. It has been observed that improper management of e-waste can have severe effects on the human health, causing allergies, respiratory diseases and cancer [b-Puckett and Smith, 2002]. Furthermore, leaching, open air burning and heating, as well as the uncontrolled discharge of scrap, acids, cyanides and other by-products from processing operations pollute the soil, groundwater and food [b-Terazono et al., 2006]. Prevention is paramount as 20-50 mn tons of e-waste is generated globally each year [b-UNEP, 2013].

## **2.2 International Conventions and Protocols on E-Waste**

There are a number of international conventions, protocols and laws which provide guidance and standards for e-waste management. These include:

1. Basel Convention on Trans boundary Movement of Hazardous Waste, and Disposal, (1992)
2. Ban Amendment (2004)
3. Bamako Convention on the Ban of the Import into Africa and the Control of Trans boundary Movement and Management of Hazardous Wastes within Africa (1991)
4. Framework Convention on Climate Change, 1992
5. The Vienna Convention for the Protection of the Ozone Layer.
6. Montreal Protocol on Substance that Deplete the Ozone Layer (1987)
7. The Stockholm Convention on Persistent Organic Pollutants (2004).
8. Kyoto protocol.

### **2.3 State of e-waste in EACO member states**

Like other developing regions, the EACO member states identified ICT as an enabling factor for transforming the region into an information society through initiatives such as e-government, e-education, e-medicine, e-commerce etc. As such, there has been an enormous increase in ICT usage. The landing of three fibre optic cables in the region heralds an era of exponential growth of access to and use of information and communications technologies (ICTs). With this growth, it is expected that the region will produce more e-waste as the people discard obsolete computers, television sets, mobile phones and other ICT equipment. Further donations of second-hand equipment, the transition to digital broadcasting and the rapid turnover in technology are likely to compound the problem.

A study funded by Hewlett-Packard, the Global Digital Solidarity Fund (DSF) and the Swiss Federal Laboratories for Materials Testing and Research (Empa) in 2007 indicates that the private sector has the largest computer stocks and generates two thirds of the related waste flow in Africa. The private sector cites lack of infrastructure and policy as some of the obstacles to contributing to e waste management.

Manufacturing companies need to assume their responsibilities and obligations in setting up appropriate solutions and mechanisms to recycle their products. Policies for the return of goods at the end of their useful life and plans for safe and clean disposal of equipment and e-waste should be adopted. Some solutions that industry could adopt include, but are not limited to; adapting precautionary principles by employing sustainable product designs, for example through the use of renewable, biodegradable components and material and waste minimization techniques, among others. Industry could also work with governments to implement extended producer responsibility as an appropriate framework that combines major principles of environmental justice. This approach would shift responsibility for safe disposal to manufacturers.

Civil society is also very active in increasing public, scientific and business knowledge on e-waste and continues to play a very important role of awareness creation through research and advocacy activities, such as those undertaken by I-Network Uganda, ICT association of Uganda (ICTAU) and the Kenya ICT Action Network (KICTANet), etc. This seems to have encouraged East African governments to take the issue seriously and to begin to act. Civil society organisations also continue to increase consumers' knowledge of e waste by placing the issue on the public agenda through collaboration with the media.

East African governments should focus on developing policy, legislative and regulatory frameworks at a national and regional level. These policy interventions must begin by clearly defining e-waste for effective regulation and provide an integrated policy with both regulatory and operational components. They must also encourage an effective import and export regulatory regime, and ensure that the provisions of international conventions – Basel and Bamako – are implemented and followed.

#### **2.4 Current initiatives for e-waste management in EACO member states**

The past ten years, the governments of East African member states have been preoccupied with universal affordable access to ICTs without paying equal attention to the environmental impact of access.

Studies conducted in the East Africa region identify the main stakeholders in e-waste generation and management as the government/policy makers, private sector (manufacturers, distributors/importers), and civil society (refurbishment centres, consumers, collectors, recyclers). However, most of East Africa's e-waste is dealt with by the informal sector with little or no regulation and no existing strategy for e waste management and recycling systems. Some countries like Uganda, Rwanda and Kenya have just begun to deal with and develop basic waste management systems, but still lack the capacity, skills, resources and infrastructure to address the challenge effectively.

Most of the countries in the region have no specific policies on e-waste. Uganda recently developed one (October 2012), while Rwanda has a draft and Kenya has a regulation in the making. However, there is recognition of international conventions regulating hazardous waste, among them the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the Bamako Convention, which aims at introducing preventive measures and guaranteeing appropriate disposal of hazardous waste in Africa.

Although East African member states do not have specific e-waste legislation, there are provisions found in other laws governing the environment, air, water, public health, waste and hazardous substances. For example, in Tanzania, the main environmental governance legislation is the Environmental Management Act (2004), which addresses the management of hazardous waste. It is largely aimed at regulating movement of this waste and placing responsibility for its disposal on those who generate it. Uganda applies the non-specific National Environment Act (1999) to e-waste; however, in 2012 the government released the national e-waste management policy for comments from stakeholders. The policy aims at enforcing several strategies for e-waste management. Kenya, on the other hand, has a draft regulation of e-waste management pending endorsement by Government.

The Rwanda national environment policy sets principles for management of the environment as well as institutional legal reforms and established the Rwanda Environment Management Authority (REMA). Nevertheless, the application of these legal instruments is typically unspecific to e-waste, and the practical implementation of environmentally progressive waste regulations when it comes to discarded technology is virtually impossible in countries where basic waste management is still a priority.

The East African member states under EACO have also put in place a number of initiatives as regards e-waste and its management, i.e. developed of an East African e-waste management policy model framework to guide member countries in developing their e-waste management policies, workshop on e-waste management in the East African region with an aim to create awareness as well as stakeholder collaboration on achieving sustainable e-waste management in the region.

## **2.5 E-Waste Challenges and Threats in EACO Region**

Although awareness and readiness for improving the management of e-waste in the region are increasing rapidly, major obstacles still exist. These include:

- I. Lack of reliable data poses a major challenge to the development of e waste management strategies, policy and regulation.
- II. The reliance on the informal sector, without appropriate infrastructure and regulations, where e-waste is commonly burnt in open air or dumped into landfills and bodies of water where it releases toxic substances, continues to contribute to environmental degradation and serious health challenges.
- III. Increased dumping of second-hand equipment in the region in the form of donations. The report recommends fast-tracking the establishment of electronic and hazardous waste management frameworks, and building capacity for handling electronic and hazardous waste.
- IV. The lack of an e-waste management system and limited processing capacity has led to e-waste being stockpiled in homes, offices and repair shops. However, some



companies, such as Hewlett-Packard and Nokia, among others, have launched or expanded recycling programmes in recent years. Some already provide incentives to their customers for product return through a “buy-back” approach

- V. Lack of awareness among consumers and collectors of the potential hazards of e-waste to the environment and their health. Consumers in the region tend to use equipment until the end of its useful life and then store it in their offices or homes, or sell or donate it as second hand equipment that can be repaired and used by others. Consumers need to be informed of their role in e-waste management and encouraged to adopt responsible consumerism. For example, while buying electronic products, they could opt for those made with recycled content and few toxic components, or those that are energy efficient, with minimal packaging and that offer take-back options. Furthermore, donating electronics for reuse could extend the life of valuable products and keep them out of the waste management system for longer.

The current waste management experience in the region demonstrates that informal organisations and the few formal ones cannot deal adequately with the increasing volumes, diversity and complexity of e-waste. It needs to be addressed through a multi-stakeholder partnership approach within a relevant and appropriate framework, at both the national and regional levels. Clear responsibilities must be placed on each stakeholder group to ensure that each is playing its role effectively and efficiently. However, the role of governments in ensuring that the appropriate legislation and new frameworks are drafted is paramount.

## **2.6 Opportunities and Prospects**

There are quite a number of opportunities that present themselves especially in countries that are still grappling to manage e-waste adequately such as in developing countries. There is currently a global push to manage e-waste and international organizations such as aITU and UN have spearheaded this push which has then cascaded downwards to regional and national levels. It is quite noticeable that governments even in the developing regions

like East Africa have appreciated the need to adequately manage e-waste. E-waste and its management also presents an economic, social and technological opportunities, i.e. e-waste is a source of valuable resources, its management presents business and employment opportunities etc. adequate e-waste management reduces on environmental impact.

### **1. Basel Convention (5<sup>th</sup> May 1992)**

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, is an international treaty that was designed to reduce the movements of hazardous Wastes between nations, and specifically to prevent transfer of hazardous waste from developed to Less Developed Countries (LDCs). It does not, however, address the movement of radioactive waste.

The Convention was opened for signature on 22 March 1989, and entered into force on 5 May 1992. As of July 2016, 183 states and the European Union are parties to the Convention. Haiti and the United States have signed the Convention but not yet ratified it.

***All countries in the region apart from Tanzania have ratified the convention***

### **2. The Basel Convention Ban Amendment 1994**

The “Ban Amendment” provides for the prohibition by each Party included in the proposed new Annex VII (Parties and other States which are members of the OECD, EC, Liechtenstein) of all transboundary movements to States not included in Annex VII of hazardous wastes covered by the Convention that are intended for final disposal, and of all transboundary movements to States not included in Annex VII of hazardous wastes covered by paragraph 1 (a) of Article 1 of the Convention that are destined for reuse, recycling or recovery operations.

The Ban Amendment was originally adopted as a decision of the second meeting of the Conference of the Parties in March 1994. The Secretariat provides assistance to parties that are facing difficulties in ratifying the Ban Amendment, on request and within available resources.

***Only Kenya has ratified the Ban Amendment***

### **3. Bamako Convention;**

The Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa is a treaty of the African Nations prohibiting the import of any hazardous wastes including radioactive wastes. The Convention was negotiated by twelve nations of the OAU at Bamako, Mali in January 1991, and came into force in 1998.

The Bamako Convention uses a format and language similar to that of the Basel Convention, but is much stronger in prohibiting all imports of hazardous waste. Additionally, it does not make exceptions on certain hazardous wastes (like those for radioactive materials) made by the Basel Convention.

***All countries in the region have ratified the convention***

### **5. Framework Convention on Climate Change.**

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty negotiated at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992, then entered into force on 21 March 1994.

***All countries in the region apart from Tanzania have ratified the convention.***

### **6. Kyoto protocol**

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions, based on the premise that (a) global warming exists and (b) man-made CO<sub>2</sub> emissions have caused it.

***All EACO Member states have ratified the protocol***

## **SWOT ANALYSIS**

These challenges and opportunities are further summarized in the SWOT Analysis presented in the Table below.

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> <li>- Model regional e-waste management policy framework in place</li> <li>- Political commitment by leaders in the member states e.g. ratification and adoption of relevant policies, laws and conventions</li> <li>- Existence of E-waste management coordination structures at regional and national levels (EACO WG 10, National steering committee, Regional steering committees)</li> <li>- Improved appreciation on awareness on matters of e-waste across the board (political, technical and general public)</li> <li>- Implementation of e-waste management initiative EACO e.g. studies/ statistics</li> <li>- Existing of some basic e-waste management infrastructure in some countries such as dismantling facilities in Kenya and Rwanda</li> <li>- Existence of enabling environment at national level such as e-waste management policy and strategy in Uganda and draft policy in Rwanda, draft regulations and guidelines in Kenya.</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of adequate statistics on e-waste generation in the region</li> <li>- Limited coordination of e-waste activities at regional level</li> <li>- Lack of comprehensive awareness on e-waste especially among end-users, decision makers.</li> <li>- Limited expertise in e-waste management within the region</li> <li>- Inadequate e-waste management infrastructure and facilities.</li> <li>- Insufficient e-waste policies laws and regulations and weak enforcement of existing ones and lack of harmonization of the existing ones</li> <li>- Unpredictable flow of resources on e-waste management</li> </ul>
OPPORTUNITIES	TREATS
<p><b>Political</b></p> <ul style="list-style-type: none"> <li>- Global push on e-waste management issues and initiatives by ITU, UN activities through</li> </ul>	<p><b>Political</b></p> <ul style="list-style-type: none"> <li>- Political instability in the region</li> <li>- Set back on political will</li> </ul>

<p>UNFCCC, UNEP, Basel and Bamako Convention, StEP</p> <ul style="list-style-type: none"> <li>- Regional integration and the EAC policy harmonization framework</li> <li>- Global conventions, protocols, declarations.</li> </ul>	
<p><b>Economic</b></p> <ul style="list-style-type: none"> <li>- Economic opportunities arising from E-waste management</li> <li>- Business and employment</li> <li>- Potential for export growth</li> </ul>	<p><b>Economic</b></p> <ul style="list-style-type: none"> <li>- Affluent societies – High consumption...</li> <li>- Counterfeit of substandard goods</li> </ul>
<p><b>Social</b></p> <ul style="list-style-type: none"> <li>- Growing activism on environment and Green computing</li> <li>- Increased Awareness of negative impact of e-waste – Public health</li> <li>- Potential positive on special impact groups such as women, youth and PWDs – people with disabilities.</li> </ul>	<p><b>Social</b></p> <ul style="list-style-type: none"> <li>- Booming informal sector in the region</li> <li>- Social practices and culture in handling e-waste (holding on items due to emotional attachment)</li> </ul>
<p><b>Technology</b></p> <ul style="list-style-type: none"> <li>- Availability of available technologies</li> <li>- Best practices for Bench mark</li> </ul>	<p><b>Technology</b></p> <ul style="list-style-type: none"> <li>- Changing of technology making the ICT equipment’s inseparable</li> <li>- Rudimentary technology like incineration or burning.</li> </ul>
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>- Urban mining</li> <li>- Reduced Greenhouse gases emissions</li> </ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>- Continued Poor disposal methods hence pollution to the environment</li> <li>- Non segregation of waste</li> </ul>
<p><b>Legal</b></p>	<p><b>Legal</b></p>

## **CHAPTER III: EACO REGIONAL APPROACH TO E-WASTE MANAGEMENT**

### **3. STRATEGIC DIRECTION**

#### **3.1 Vision, Goal and Strategic Themes**

##### **Vision**

The Vision of the Strategy resonates towards *“Zero negative impact of e-waste in EACO member states by 2030”*.

##### **Goal**

The goal of the strategy is to *“achieve a sustainable e-waste management system in the EACO member states”*.

##### **Strategic Themes/Pillars**

In order to realize the above goal, EACO member states and collaborators undertake to intervene in the following priority areas.

1. Policy, Legal and Regulatory framework
2. Infrastructure for e-waste management
3. Resource mobilization
4. Coordination, institutional alignment
5. Research, Monitoring, Evaluation and Capacity building

#### **3.2 Strategies and Strategic Actions**

##### **Pillar 1: Policy, Legal and Regulatory frameworks**

##### **Strategy (s)**

To ensure protection of human health, environment and enabling conditions for sustainable investment in e-waste management within the region; the priority intervention

will be on harmonization of the existing policy, legal and regulatory framework for e-waste management within the EACO member states.

### **Strategic Actions**

1. Review existing Policy, laws, standards and guidelines for e-waste management in EACO member states to identify gaps
2. Develop Regional e-waste policy, guidelines, laws, regulations and standards to act as model guiding national strategies.
3. Disseminate Regional e-waste management policy, guidelines and standards to cater for the uniqueness of e-waste in EACO member states
4. Facilitate the adoption and entrenchment of regional e-waste policy, guidelines and standards.
5. Advocate for harmonization and alignment of national policies, guidelines and standards to developed regional policies, standards and guidelines

## **Pillar 2: Infrastructure for E-waste Management**

### **Strategy(s)**

The principle strategy that will help address the identified infrastructure challenges for e-waste management is to ensure rationalization of e-waste management infrastructure in the EACO member states and put in place the requisite infrastructure.

### **Specific Actions**

The priority interventions in the infrastructure for e-waste management over the planning period include the following:

2. Conduct baseline survey on e-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states
3. Conduct an e-waste management infrastructure requirements analysis for the EACO member states

4. Develop an e-waste management infrastructure roll out plan
5. Put in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection etc
6. Facilitate the development of a regional modern dismantling and recovery facility within the EACO member states

### **Pillar 3: Resource Mobilization**

#### **Strategy (s)**

Successful implementation of the EACO e-waste Management Strategic plan hinges on adequate availability of resources - physical, human and financial resources. Putting in place a comprehensive Resource Mobilization Mechanism for e-waste management has therefore been identified as a critical strategy.

#### **Strategic Actions**

The strategic measures, which will help in mobilization of adequate resources for e-waste management and ensure predictability and sustainability in allocation, utilization and accountability, include the following:

1. Develop a Resource Mobilization Strategy for effective implementation of EACO e-waste Management Strategic Plan
2. Streamline funding mechanisms for e-waste management within EACO Member States
3. Engage EEE producers/retailers in strategic partnerships including financing the e-waste collection, transportation and treatment through the extended producer responsibility (EPR) and advanced recycling fee (ARF).
4. Conduct a feasibility study for the establishment of EACO e-waste Fund.
5. Set up an EACO e-waste Fund which will collect EPR fees, ARF individual and corporate contributions etc.
6. Engage regional and international organizations such as UNIDO, ITU, STEP, UNEP, World Bank, UNU, GIZ, Basel convention, etc for resource mobilization.



## **Pillar 4: Coordination and Institutional Alignment**

### **Strategy (s)**

Strengthening the EACO e-waste coordination structures at regional and national levels is a core strategy towards ensuring effective implementation of priority e-waste management programmes and projects in the region.

### **Strategic Actions**

The following strategic measures will be executed to enhance coordination and institutional alignment for the strategy:

1. Support the operations and functions of the Regional Steering Committee for effective coordination of the implementation of Regional e-waste Strategic plan
2. Establish collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
3. Support the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), to enhance producer participation in e-waste management
4. Establish proper mechanisms for sharing experience and knowledge on E-waste management
5. Develop a Communication and Stakeholder Engagement strategy on e-waste management
6. Engage with key stakeholders such as Government, Academia, private sector, civil society and development partners to foster mainstreaming of e-waste management within their policies, work plans and budgets

## **Pillar 5: Research, M&E and Capacity Building**

### **Strategy (s)**

In addressing of the critical challenges identified in the situation analysis such as lack of accurate information on volume of e-waste generated and/or imported in the EACO region, limited

awareness about e-waste and lack of expertise in use of the appropriate e-waste management practices, three strategies were identified:

1. Promote research and innovation in e-waste management
2. Put in place a monitoring and evaluation mechanism for e-waste management
3. Capacity Building and Awareness creation for e-waste management in EACO member states

## **Strategic Actions**

### **Strategy 1: Promote research and innovation in e-waste management**

Under promotion of research and innovation in e-waste management, the following priority actions will be executed:

1. Conduct studies and baseline surveys on e-waste
2. Organize annual e-waste management innovation contests/ awards
3. Collaborate with research institution to promote research and innovation on e-waste
4. Mainstream e-waste issues in educational curriculum at various levels especially in technical school

### **Strategy 2: Put in place a monitoring and evaluation mechanism for e-waste management**

The following actions will be executed to enhance the realization of this strategy:

1. Collaborate with stakeholders to establish and maintain a database for e-waste generations/ volumes
2. Develop and implement a participatory monitoring and evaluation framework
3. Conduct midterm review and final evaluation of the regional e-waste management strategy
4. Support monitoring and evaluation for national e-waste management initiatives in member states

### **Strategy 3: Capacity Building and Awareness creation for e-waste management in EACO member states**

The identified actions include:

1. Raise comprehensive awareness about e-waste and its management
2. Build capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.
3. Undertake e-waste awareness campaigns in all member states targeting the general public, technical staff and local leaders
4. Networking with partner organizations through stakeholder meetings and dialogues
5. Engage producers/retailers of EEE to participate in e-waste awareness campaigns
6. Participate in regional and international forums on best practices in e-waste management.
7. Develop information, education and communication (IEC) packages for each stakeholder category

*These strategies are mapped to each pillar as per Annex 2 below.*

## **CHAPTER IV: IMPLEMENTATION PLAN FOR THE REGIONAL STRATEGY**

### **4.1 Key stakeholders and their roles**

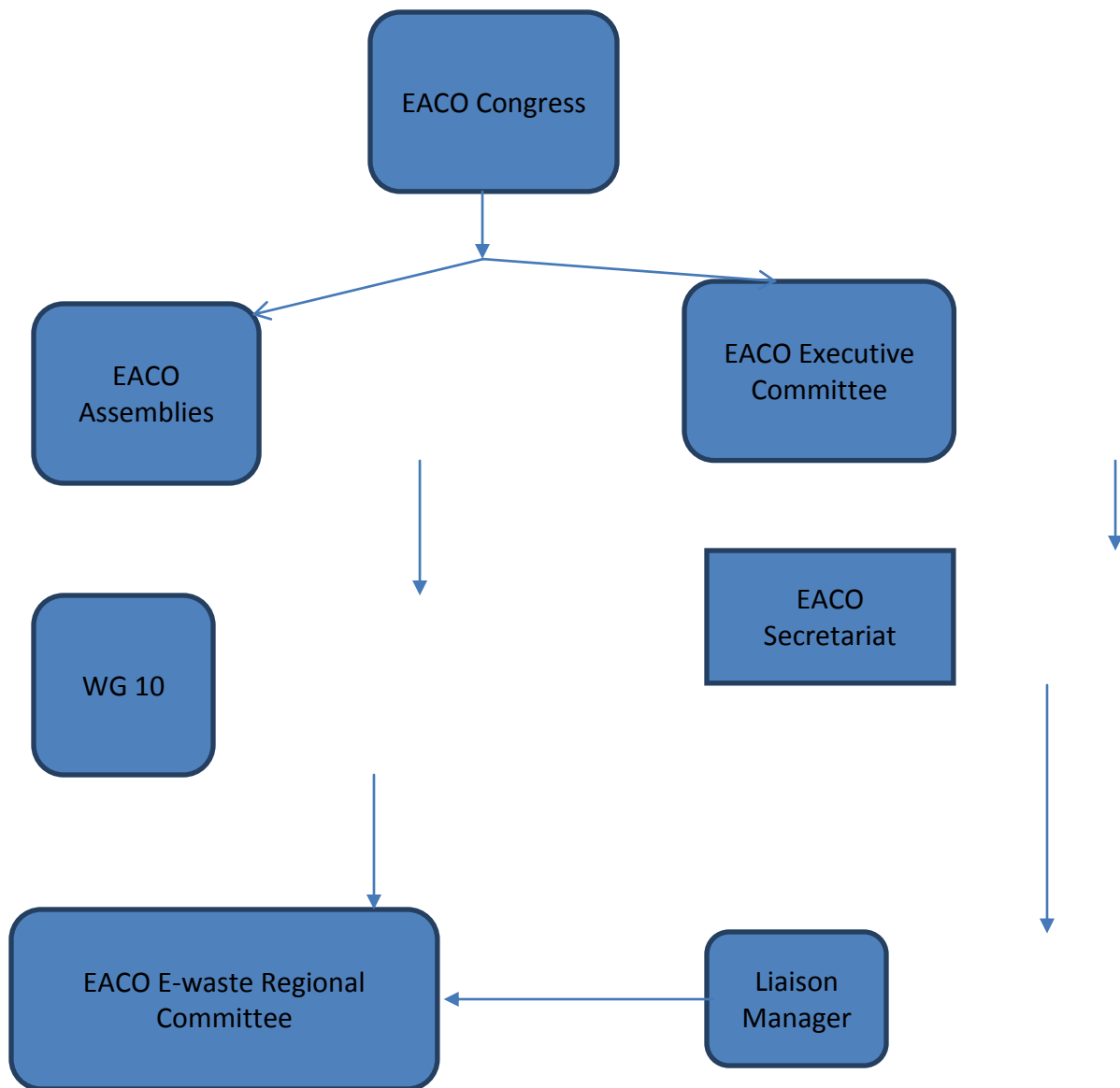
Different stakeholders (individuals and institutions) will play roles and responsibilities in the execution of the EACO e-waste Management Strategy.

For this purpose the stakeholder have been grouped into two categories, namely regional and national stakeholders. The regional stakeholders include EACO secretariat and all its partners. The partners include the existing as well as potential partners. The national stakeholders include national organizations that constitute EACO member states, national organizations responsible for e-waste management as well as structures and mechanisms created at country level to coordinate e-waste management issues. The key stakeholders and their roles is indicated in the Implementation Matrix in Annex 3.

### **4.2 Co-ordination and Institutional Arrangement**

The overall responsibility for implementation, oversight and monitoring and evaluation of the strategy rests to the EACO secretariat. The day-to-day implementation of strategy will be the responsibility of EACO Working Group 10 on Environment and e-waste through the Regional e-waste Management Steering Committee.

The organizational structure for the implementation of EACO e-waste Management Strategic Plan is as illustrated in the Figure 1



**Figure 1: E-Waste strategic plan Implementation organization structure**

### 4.3 Institutional capacity strengthening

In order to ensure effective coordination of the implementation of the strategy, some capacity enhancement measures have been proposed. These include;

- i. Support the operations and functions of the Regional Steering Committee for effective coordination of the implementation of Regional e-waste Strategic plan

- ii. Establish collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
- iii. Support the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), to enhance producer participation in e-waste management
- iv. Capacity Building and Awareness creation for e-waste management in EACO member states

#### **4.4 Action Planning**

The actions identified for each of the strategies were spilt further into activities and inputs. The timeframe for implementation of these strategies was also estimated. The resulting action plan is indicated in Annex 4 below.

This being the first strategic plan, most of the strategic interventions are expected to commence in year one. However, in order to circumvent the risk of not being able to mobilize adequate resources within the first year, other interventions have been scheduled to start in year 2. There are only a few interventions, which will delay beyond year two such as the mid-term review and terminal evaluation of the plan, which are respectively scheduled for 2 ½ and 5<sup>th</sup> year.

## **CHAPTER V: RESOURCE MOBILISATION STRATEGY**

For successful implementation of the e-waste management strategy, there is need for a sustainable and sufficient funding mechanism. A critical analysis of the required resources, the funding gap and proposed measures to finance the gap are as detailed below.

### **5.1 Costing of the plan**

All strategic interventions in the strategic plan have been costed and total resource requirement for implementation of the plan projected for the entire five-year period. The costing has been based on estimation of costs for the different outputs by looking at the average costs of the inputs, which go into delivery of these outputs. Some inputs include the following:

1. Cost of conducting workshops for stakeholders (venue, refreshment and allowances).
2. Coordination costs including travel and meetings.
3. Writing funding proposals.
4. Cost for benchmarking
5. Monitoring inspection, and audits
7. Consultancy and professional fees
8. Printing and publication
9. Advertising and publicity

Based on the above framework, the total cost of the strategy for the entire five years is estimated at USD1,680,000 this translates into an average of USD 336,000 per annum.

### **5.2 Funding gap**

The current budget allocation to e-waste by EACO is USD 20,000 per annum.

By comparing this with the projected average annual budget of 336,000 leaves a huge funding gap of USD 316,000 per annum and USD 1,580,000 over the entire five-year period.

### **5.3 Financing the Plan**

There has not been no structured funding mechanism for e-waste management in the region. The allocation by EACO is at a meager USD 20,000 per annum. No development partner has yet committed to financing e-waste management in the region.

Development of a comprehensive resource mobilization strategy has been prioritized as one of the key strategic interventions for the plan. EACO targets to mobilize at least USD 1,500,000 over the five year period.

The possible sources of funding, which are to be further articulated in the resource mobilization strategy include but not limited to;

6. Development Partners,
7. Innovative measures of mobilizing resources from producers such as the EPR, ARF
8. Contributions from Governments of Member States
9. Corporations and Private sector

#### **5.4 Other Proposed Measures to finance the gap include**

1. **Local/community contribution** - WEEE is an emerging issue; therefore no resources have been allocated for e-waste management. Local authorities are already constrained in collecting solid wastes and e-waste is not seen as a priority. Governments and other stakeholders will need to allocate initial funding for e-waste management.
2. **Mainstreaming of e-waste management in various implementing MDA and other stakeholders' budgets is critical.**

These avenues should be explored to ensure e-waste is collected and well disposed, and that the e-waste challenge is handled in a sustainable manner.

For effective collection and management of resources for sustainable e-waste management, **creation of e-waste fund** has been proposed. The e-waste fund is anticipated to be a contributory fund for mobilizing and financing priority regional e-waste management initiatives. Among the measures to replenish, are contributions from development partners, private sector, producers and government. A feasibility study will be conducted to advice on the institutional coordination framework as well as financial model for the fund.

It should be noted that establishing and operationalizing an e-waste fund will be a medium term measure to ensure sustainable financing of e-waste management.

The Specific resource mobilization actions highlighted in this strategic plan includes:

- i. Prepare a detailed resource mobilization plan for implementation of the e-waste strategy.



- ii. Engage key institutions on the set up and management of the e-waste fund.
- iii. Facilitate the setting up of a Producer Responsible Organization to coordinate the resource financial mobilization.
- iv. Liaise with relevant institutions to review legislation to include an Advance Recycling fee for imported EEE.
- v. Issue operational licenses to all E-waste collectors and facility operators/owners, and regulate their operations.
- vi. Advocate for inclusion of E-waste management in budgetary allocations at various levels of governance.
- vii. Engage manufactures of various EEE brands to support e-waste recycling, treatment, and disposal activities, and contribute to the e-waste fund.
- viii. Participate and seek partnership in the various international, regional and local projects on funding e-waste projects.
- ix. Review and update existing legislation and regulations to provide for e-waste levy for all e-waste producers.

## CHAPTER VI: MONITORING AND EVALUATION STRATEGY

To be able to gauge to the extent the target outcomes have been realized, a monitoring and evaluation framework for the plan has been developed. The framework identifies the anticipated outcomes and results of strategy – both immediate and long term. For each result (outcomes and outputs) baseline conditions and targets have been identified to show the current status and help in assessing changes in the indicator over time. The detailed M&E Matrix is appended as Annex 5 below.

The table below presents high-level outcomes and indicators.

Table-1 Outcomes and Indicators

Target Outcome	Indicator level	Baseline	Target
<b>Impact</b>			
1. Improvement in standard of living.	(i) No of green jobs created	29	200
	(ii) Tax income to government from scheme operators	None	USD 50,000
2. Reduction of negative impact of e-waste on public health.	(i) % Reduction in diseases related to e-waste	None	50%
3. Reduction of negative impact of e-waste on the environment	(i) Reduction of Greenhouse gas emissions (GHG)	None	50%
<b>Outcomes</b>			
1. A harmonized legal, policy and regulatory framework for e-waste in EACO member states	(i) Availability of regional e-waste management policy and guidelines	None	1
	(ii) Number of Member states adopting regional e-waste standards	0	5

	(iii) No of member states whose policies and laws are harmonized with those of the region	0	5
2. A rationalized and well distributed and developed e-waste management infrastructure	(i) Number of e-waste infrastructure developed at regional level	1	5
	(ii) Number of e-waste infrastructure established in member states	None	1
3. Availability of a comprehensive resource mobilization mechanism	i) Number of development partners attracted in e-waste	None	20
	ii) % Annual increase in e-waste management budget	0	15%
	iii) Number of Innovative E-waste funding mechanism such as EPR, ARF and e-waste Fund established	zero	5
4. Strengthened capacity for coordination of e-waste at EACO	i) % Functionality of EACO structures responsible for e-waste (WG 10, Steering Committee etc)	50%	90%
	ii) % of e-waste management strategic plan implemented	0	100%
10. Effective monitoring and evaluation system for e-waste	(i) Availability of updated inventory of e-waste	None	1
	(ii) Number of reports generated from the M&E system	None	2
11. Comprehensive awareness about e-waste	(i) % Increase in public awareness about e-waste	15%	50%

in the region	(ii) % Adoption to sound e-waste management practices	15%	50%
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Development of a comprehensive Monitoring and Evaluation System has been identified as one of the core strategies for successful monitoring of the implementation and evaluation of the impact of the e-waste strategy. Underscoring this M&E system is the need for an intensive surveillance, inspection, monitoring, audit and reporting on performance of the strategy. The E-waste strategy shall also be subjected to a midterm review after two and half years and a terminal evaluation after the fifth of its implementation.

Monitoring and Evaluation will be undertaken by the Steering Committee covering the various stakeholders or lead agencies involved in implementation of the e-waste strategy.

## **CHAPTER VII: COMMUNICATION AND ADVOCACY STRATEGY**

This section examines the following broad focus points;

1. Key stakeholders to be engaged
2. Stakeholder interests – power and influence
3. Measures to help engage stakeholders
4. Media of reaching out

### **1. KEY STAKEHOLDERS TO BE ENGAGED**

In order for a successful implementation of this strategy, communication and advocacy of the key stakeholders is crucial and they must be engaged. The key stakeholders in WEEE include but not limited to, Development Partners such as, UNIDO, UNEP, STEP, BASEL, WORLD BANK, DANIDA, GIZ whose main interest in the strategy is to build lasting partnerships and promote closer engagements to foster democracy, economic development and trade. The investors are also key stakeholders because they will want the strategy to ensure an enabling environment for investment. Both member states and the Agencies therein will want the strategy to deliver a harmonized regional E-waste management Policy, Regulations, Guidelines and Standards in the region while the E-waste schemes will expect the strategy to give them a clear roadmap which will standardize the framework of e-waste management in the region, the strategy should also ensure incentives in e-waste management which will make them re coup their

money and create a level playing ground for all. While the public will expect a clean and healthy environment free of negative impact of e-waste.

These stakeholders if properly engaged will influence smooth implementation of the strategy. The stakeholders can be engaged through meetings, retreats, and development of proposals, development of projects, workshops, and trainings.

<b>CATEGORY</b>	<b>STAKEHOLDER</b>	<b>INTEREST</b>	<b>MEANS OF ENGAGEMENT</b>
Development Partners	UNIDO, UNEP, STEP, BASEL, ITU, WORLD BANK, GIZ, DANIDA	Build lasting partnerships and promote closer engagements to foster democracy, economic development and trade.	Meeting, retreats, development of proposals, development of projects, Workshops
Investors	HP, DELL	Creating an enabling environment for investment	Meeting, retreats, development of proposals, development of projects, Workshops
Member States	RWANDA,UGANDA, TANZANIA, KENYA, BURUNDI	A harmonized regional E-waste management Policy, regulation, guidelines and standards.	
Agencies in Member states	KRA, NITA, NEMA,	Harmonized regional e-waste policy, Regulations, guidelines	Development of the regulations
E-waste scheme	EPR, EEE, Recycler, collectors,	A clear roadmap which will standardize the framework of e-waste management in the region, Ensure incentives in e-waste management, which will make them re coup their money and create a level playing ground for all.	Workshops, trainings,
Public	ALL	A clean and healthy environment free of negative	Publications

		impact of e-waste.	
The informal sector	Recyclers, collectors. Etc.	To ensure a clean and safe environment to the operators in the informal sector.	Guidelines and workshops
Producers	Producers	Empowered market with the capability of buying electric goods and adequately disposing them after they have obtained their lifespan	Guidelines and workshops
Non-governmental organizations	All related to Environment and humanitarian sectors	Have continues investment of the non-governmental organizations and at the same time have them protect the environment in their endeavors	Stakeholders meetings and workshops
Formal collectors and recyclers	Recyclers and Collectors	Have conducive environment for the operation of the collectors and recyclers of the e waste	Guidelines and workshops
International corporations	Corporations	Trans-boundary and product compliance	Treaties and agreements
Universities and research institutions	Universities and research institutions	Have relevant information on the lifespan of electric goods and their probable disposal site	Research topics and curriculum
Companies	All	Companies to have proper disposal sites for the electric wastes.	Guidelines and systematic collection plans.

The communication and advocacy strategy will be developed once strategy is approved.

## ANNEX1

### SUMMARY DESCRIPTION OF INTERNATIONAL PROTOCOLS AND CONVENTIONS RELEVANT TO E-WASTE

#### **1. Basel Convention (5<sup>th</sup> May 1992)**

The **Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and Their Disposal**, usually known as the **Basel Convention**, is an international treaty that was designed to reduce the movements of hazardous Wastes between nations, and specifically to prevent transfer of hazardous waste from developed to Less Developed Countries (LDCs). It does not, however, address the movement of radioactive waste.

The Convention was opened for signature on 22 March 1989, and entered into force on 5 May 1992. As of July 2016, 183 states and the European Union are parties to the Convention. Haiti and the United States have signed the Convention but not yet ratified it. EACO Member states have all signed and ratified the Basel Convention.

#### **2. The Basel Convention Ban Amendment 1994**

The “Ban Amendment” provides for the prohibition by each Party included in the proposed new Annex VII (Parties and other States which are members of the OECD, EC, Liechtenstein) of all transboundary movements to States not included in Annex VII of hazardous wastes covered by the Convention that are intended for final disposal, and of all transboundary movements to States not included in Annex VII of hazardous wastes covered by paragraph 1 (a) of Article 1 of the Convention that are destined for reuse, recycling or recovery operations.

The Ban Amendment was originally adopted as a decision of the second meeting of the Conference of the Parties in March 1994. The Secretariat provides assistance to parties that are facing difficulties in ratifying the Ban Amendment, on request and within available resources.

#### **3. Bamako Convention;**

The **Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa** is a treaty of the African Nations nations prohibiting the import of any hazardous wastes including radioactive wastes. The Convention was negotiated by twelve nations of the OAU at Bamako, Mali in January 1991, and came into force in 1998.

The Bamako Convention uses a format and language similar to that of the Basel Convention, but is much stronger in prohibiting all imports of hazardous waste. Additionally, it does not make exceptions on certain hazardous wastes (like those for radioactive materials) made by the Basel Convention.

#### **7. Framework Convention on Climate Change.**

The United Nations **Framework Convention on Climate Change** (UNFCCC) is an international environmental treaty negotiated at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992, then entered into force on 21 March 1994.

#### **8. The Vienna Convention for the Protection of the Ozone Layer.**

The **Vienna Convention on the Law of Treaties (VCLT)** is a treaty concerning the international law on treaties between states. It was adopted on 22 May and opened for signature on 23 May 1969. The Convention entered into force on 27 January 1980. The VCLT has been ratified by 114 states as of April 2014. Some countries that have not ratified the Convention, such as the United States recognize parts of it as a restatement of customary law and binding upon them as such.

#### **9. Montreal Protocol on Substance that Deplete the Ozone Layer 1987**

The **Montreal Convention** (formally, the **Convention for the Unification of Certain Rules for International Carriage by Air**) is a multilateral treaty adopted by a diplomatic meeting of ICAO member states in 1999. It amended important provisions of the Warsaw Convention regime concerning compensation for the victims of air disasters.

#### **10. Kyoto protocol**

The **Kyoto Protocol** is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions, based on the premise that (a) global warming exists and (b) man-made CO<sub>2</sub> emissions have caused it.



**ANNEX 2:**

**MAPPING STRATEGIES TO STRATEGIC ACTIONS BY PILLAR**

<b>Pillar</b>	<b>Strategies</b>	<b>Strategic Actions</b>
<b>5. Policy, Legal and regulatory frameworks</b>	5.1 To harmonize policy legal and regulatory framework for e-waste management in the EACO member states	1.1.1 Review existing Policy, laws, standards and guidelines for e-waste management in EACO member states to identify gaps
		1.2.1 Develop Regional e-waste policy, guidelines, laws, regulations and standards to act as model guiding national strategies.
		1.1.3 Disseminate regional e-waste management policy, guidelines and standards to cater for the uniqueness of e-waste in EACO member states
		1.1.4 Facilitate the adoption and entrenchment of regional e-waste policy, guidelines and standards.
		1.1.5 Advocate for alignments of national policies, guidelines and standards to developed regional policies, standards and guidelines
<b>6. Requisite Infrastructure for E-waste Management</b>	6.1 To ensure rationalization of e-waste management infrastructure in the EACO member states	2.1.1 Conduct baseline survey on E-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states
		2.1.2 Conduct an E-waste management infrastructure requirements analysis for the EACO member states
		2.1.3. develop an e-waste management infrastructure roll out plan
		2.1.4 Put in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection etc
		2.1.5 Facilitate the development of a regional modern

		dismantling and recovery facility within the EACO member states
7. Resource mobilization	7.1 Put in place a comprehensive Resource Mobilization mechanism for e-waste management	3.1.1 Develop a Resource Mobilization Strategy for effective implementation of EACO e-waste Management Strategic Plan
		3.1.2 Streamline funding mechanisms for e-waste management
		3.1.3 Engage EEE producers/retailers in strategic partnerships including financing the e-waste collection, transportation and treatment through the extended producer responsibility and advanced recycling fee
		3.1.4 Conduct a feasibility study for the establishment of EACO e-waste fund.
		3.1.5 Set up an EACO e-waste fund which will collect EPR fees, ARF individual and corporate contributions etc
		3.1.6 Engage regional and international organizations such as UNIDO, ITU, STEP, UNEP, World Bank, UNU, GIZ, Basel convention, etc for resource mobilization.
<b>8. Institutional coordination and alignment</b>	4.1 Strengthen EACO e-waste coordination structures at regional and national levels	4.1.1 Support the operations and functions of the Regional Steering Committee for effective coordination of the implementation of Regional e-waste Strategic plan
		4.1.2 Establish collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
		4.1.3 Support the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), to enhance producer participation in e-waste management

		4.1.4 Establish proper mechanisms for sharing experience and knowledge on E-waste management
		4.1.5 Develop a communication and stakeholder engagement strategy on e-waste management
		4.1.6 Engage with key stakeholders such as Government, Academia, private sector, civil society and development partners to foster mainstreaming of e-waste management within their policies, work plans and budgets
Pillar 5: Research, Monitoring and Evaluation and Capacity building	6.1 Promote research and innovation in e-waste management	5.1.1 Conduct studies and baseline surveys on E-waste
		5.1.2 Organize annual e-waste management innovation contests/ awards
		5.1.3 Collaborate with research institution to promote research and innovation on e-waste
		5.1.4 Mainstream e-waste issues in educational curriculum at various levels especially in technical school
	6.2 Put in place a monitoring and evaluation mechanism for e-waste management	5.1.1 Collaborate with stakeholders to establish and maintain a data base for e-waste generations/ volumes
		5.1.2 Develop and implement a participatory monitoring and evaluation framework
		5.1.3 Conduct midterm review and final evaluation of the regional e-waste management strategy
		5.1.4 Support monitoring and evaluation for national e-waste management initiatives in member states
	6.3 Capacity Building and Awareness creation for e-waste management in EACO	5.1.5 Raise comprehensive awareness about e-waste and its management
		5.1.6 Build capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.
		5.1.7 Undertake e-waste awareness campaigns in all member states targeting the general public, technical

	member states	staff and local leaders
		5.1.8 Networking with partner organizations through stakeholder meetings and dialogues
		5.1.9 Engage producers/retailers of EEE to participate in e-waste awareness campaigns
		5.1.10 Participate in regional and international fora on best practices in e-waste management
		5.1.11 Develop information, education and communication (IEC) packages for each stakeholder category

**ANNEX 3  
ACTION PLAN**

Pillar	Strategies	Strategic Actions	Inputs	Proposed Budget (USD)					Total Budget	Responsible	Time frame
				2017/18	2018/19	2019/20	2020/21	2021/22			
<b>Policy, Legal and regulatory framework works</b>	1.1 To harmonize policy legal and regulatory framework for e-waste management in the EACO member states	1.1.1 Review existing Policy, laws, standards and guidelines for e-waste management in	Works hops, Meetings Desk review	50,000	50,000				100,000	EACO - RSC, EACO WG10	2019

		EACO member states to identify gaps									
		1.2.1 Develop Regional e-waste policy, guidelines, laws, regulations and standards to act as model guiding national strategies.	Technical working group	50,000					50,000	EACO - RSC, EACO WG10	2018
		1.1.3 Disseminate regional e-waste management policy, guidelines and standards	Workshops		20,000	20,000	20,000		60,000	EACO - RSC, EACO WG10	2020

		to cater for the uniqueness of e-waste in EACO member states									
		1.1.4 Facilitate the adoption and entrenchment of regional e-waste policy, guidelines and standards.	Works hops Meetings				50,000	50,000	100,000	EACO - RSC, EACO WG10	
		1.1.5 Advocate for alignment of national policies, guidelines and standards to	Advocacy Works hops Meetings				20,000	20,000	40,000	EACO - RSC, EACO	

		developed regional policies, standards and guidelines									
<b>Infrast ructure for E- waste Manag ement</b>	2.1To ensure rationalization of e-waste management infrastructure in the EACO member states	2.1.1 Conduct baseline survey on E-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states	Consul tancy  Works hops	50,0 00					50,00 0	EACO - RSC, EACO WG10	201 8
		2.1.2 Conduct an E-	Consul tancy/ Works	50,0 00					50,00 0	EACO - RSC, EACO	201 8

		waste management infrastructure requirements analysis for the EACO member states	hops/							WG10	
		2.1.3. develop an e-waste management infrastructure roll out plan	Consultancy Workshop	50,000					50,000	EACO - RSC, EACO WG10	2018
		2.1.4 Put in place appropriate mechanisms for collection, transportation and disposal of e-waste	Trainings, Workshops, Technical working group	20,000	20,000	20,000	20,000	20,000	100,000	EACO - RSC, EACO WG10, National steering committee.	2022



		such as the take-back systems with incentives for consumers, door-to-door collection etc									
		2.1.5 Facilitate the development of a regional modern dismantling and recovery facility within the EACO member states	Consul tancy/ Techni cal worki ng group Works hops,	100, 000					100,0 00	EACO - RSC, EACO WG10	201 8
<b>Resource mobilization</b>	3.1Put in place comprehensive Resource	3.1.1 Develop a Resource Mobilization	Consul tancy/ Techni cal worki	20,0 00					20,00 0	EACO - RSC, EACO WG10	201 8

	Mobilization mechanism for e-waste management	Strategy for effective implementation of EACO e-waste Management Strategic Plan	ng groups								
		3.1.2 Streamline funding mechanisms for e-waste management	-								
		3.1.3 Engage EEE producers /retailers in strategic partnerships including financing the e-waste	Meetings/ workshops	5,000	5,000	5,000	5,000	5,000	25,000	EACO - RSC, EACO WG10	2022

		collection, transportation and treatment through the extended producer responsibility and advanced recycling fee									
		3.1.4 Conduct a feasibility study for the establishment of EACO e-waste fund.	Consultancy Workshop	20,000	20,000				40,000	EACO - RSC, EACO WG10	2019
		3.1.5 Set up an EACO e-waste fund which will collect EPR fees, ARF	Operation/	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG10	2022

		individual and corporate contributions etc									
		3.1.6 Engage regional and international organizations such as UNIDO, ITU, STEP, UNEP, World Bank, UNU, GIZ, Basel convention, etc for resource mobilization.	Meetings, Workshops, Proposals	5,000	5,000	5,000	5,000	5,000	25,000	EACO - RSC, EACO WG10	2022
<b>Institutional coordination and alignment</b>	4.1 Strengthen EACO e-waste coordination structures at regional	4.1.1 Support the operations and functions of the	Meetings, Workshops, Operations,	20,000	20,000	20,000	20,000	20,000	20,000	EACO - RSC, EACO WG10	2022

	and national levels	Regional Steering Committee for effective coordination of the implementation of the Regional e-waste Strategic plan	office								
		4.1.2 Establish collaborative framework with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member	Meetings, Workshops	5,000	5,000	5,000	5,000	5,000	25,000	EACO - RSC, EACO WG10	2022

		states.									
		4.1.3 Support the establish ment of a Regional Producer Associatio n as a mechanis m for the implemen tation of EPR (Extended Producer responsibi lity), ARF (Advance d recycling fee), to enhance producer participati on in e- waste managem ent	Meetin gs,  Operat ions	10,0 00	10,00 0	10,0 00	10,0 00	10,0 00	50,00 0	EACO - RSC, EACO WG10	202 2
		4.1.4 Establish	-								

		proper mechanisms for sharing experience and knowledge on E-waste management									
		4.1.5 Develop a communication and stakeholder engagement strategy on e-waste management	Consultancy/ Technical working groups	10,000	10,000				20,000	EACO - RSC, EACO WG10	2019
		4.1.6 Engage with key stakeholders such as Government,	Meetings Workshops	5,000	5,000				10,000	EACO - RSC, EACO WG10	2019

		Academia, private sector, civil society and development partners to foster mainstreaming of e-waste management within their policies, work plans and budgets									
<b>Research, Monitoring and Evaluation and Capacity building</b>	1.1 Progress	5.1.1 Conduct studies and baseline surveys on E-waste	Consultancy/ Technical working group	10,000	10,000				20,000	EACO - RSC, EACO WG10	2019
		5.1.2 Organize annual e-waste	Events, workshops	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG10	2022



	in e- wa ste ma na	managem ent innovatio n contests/ awards									
ge me nt	5.1.3 Collaborat e with research institution to promote research and innovatio n on e- waste	Works hops, confer ences			10,00 0	10,0 00	10,0 00	30,00 0	EACO - RSC, EACO WG10		
	5.1.4 Mainstrea m e-waste issues in education al curriculu m at various levels especially in technical school	Works hops, Meetin gs			5,000	5,00 0	5,00 0	15,00 0	EACO - RSC, EACO WG10	20 22	

	1.2 Put in place a monitoring and evaluation	5.1.1 Collaborate with stakeholders to establish and maintain a data base for e-waste generations/ volumes	-	-						EACO - RSC, EACO WG10	
	on mechanism for e-waste management	5.1.2 Develop and implement a participatory monitoring and evaluation framework	Wokshops, Visits,	10,000	10,000	10,000	10,000	50,000		EACO - RSC, EACO WG10	2022
		5.1.3 Conduct midterm review and final evaluation	Consultancy, workshops		20,000		20,000	40,000		EACO - RSC, EACO WG10	2022

		of the regional e-waste management strategy									
		5.1.4 Support monitoring and evaluation for national e-waste management initiatives in member states	Works hops, Meetings	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG10	2022
	1.3 Capacity Building and Awareness	5.1.5 Raise comprehensive awareness about e-waste and its management	works hop, IEC printed materials	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG10	2022
		5.1.6 Build	Trainings,	10,000	10,000	20,000	10,000	10,000	60,000	EACO - RSC,	2022

	ss cre ati on for e- wa ste ma na ge me nt	capacity amongst stakehold ers and special interest groups such as informal sector, scheme operators etc.	works hop , confer ences							EACO WG10	
	in EA CO me mb er sta tes	5.1.7 Undertake e-waste awarenes s campaign s in all member states targeting the general public, technical staff and local leaders	Campa ins  Road shows , works hop	20,0 00	20,0 00	20,00 0	20,0 00	20,0 00	100,0 00	EACO - RSC, EACO WG10	202 2
		5.1.8 Networki	Meetin gs	5,00 0	5,00 0		5,00 0		15,00 0	EACO - RSC,	202 0

		ng with partner organizations through stakeholder meetings and dialogues								EACO WG10	
		5.1.9 Engage producers /retailers of EEE to participate in e-waste awareness campaigns	Meetings	5,000	5,000				10,000	EACO - RSC, EACO WG10	2019
		5.1.10 Participate in regional and international forum on best practices in e-waste	Travels, Meetings, conference	20,000	20,000	20,000	20,000	20,000	100,000	EACO - RSC, EACO WG10	2022

		managem ent									
		5.1.11 Develop informatio n, education and communic ation (IEC) packages for each stakehold er category	IEC materi als	5,00 0	5,00 0	5,000	5,00 0	5,00 0	25,00 0	EACO - RSC, EACO WG10	202 2
		<b>Total budget</b>		<b>595, 000</b>	<b>295, 000</b>	<b>235,0 00</b>	<b>280, 000</b>	<b>275, 000</b>	<b>1,68 0,00</b>		
				<b>Year 1</b>	<b>Yea r 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>0</b>		<b>Total</b>

**ANNEX 4**  
**THE DETAILED M&E MATRIX**

**LOGIC FRAMEWORK FOR THE REGIONAL E-WASTE MANAGEMENT STRATEGY**

<b>HIERACHY OF INTERVENTIONS</b>	<b>KEY PERFORMANCE INDICATORS</b>	<b>BASELINE January 2017</b>	<b>TARGET</b>	<b>Timeliness</b>	<b>MEANS OF VERIFICATION</b>	<b>CRITICAL ASSUMPTION</b>
<b><i>Pillar 1</i></b> : Policy, Legal and Regulatory frameworks for E-waste management in EACO member states						
<b>Outcome 1. :</b> A harmonized legal, policy and regulatory frameworks	<b>Harmonized legal, policy and regulatory framework in place</b>	<b>None</b>	<b>Harmonized policy Harmonized regulations Harmonized standards</b>	<b>2022</b>	<b>EACO reports</b>	<b>Continued Regional Integration</b>
<b>Output 1.1</b> Regional e-waste policies, guidelines and standards developed for EACO member states.	Number of developed regional e-waste policy, guidelines and standards	Draft model framework policy	1 regional e-waste management policy 1 regional e-waste management guideline 1 regional standard	<b>2019</b>	EACO reports	
<b>Output 1.2:</b> Policy, laws and standards for e-waste management	Number policies, laws, regulations reviewed	<b>None</b>	5 E-waste policies, 5 E-waste regulations 5 E-waste	<b>2018</b>	EACO Report	Continued Political Goodwill

reviewed.			standard			
<b>Output 1.3:</b> Regional e-waste management policy, guidelines and standards disseminated to EACO member states	Number of dissemination workshops conducted in each member state	1 workshop	10 workshop ( 2 in each member state)	2020	EACO Reports Workshop reports	
Output 1.4 E-waste regional policy, guideline and standard adopted at national level	Number of states adopting the regional e-waste policy, guidelines and standards	None	5 states	2022	EACO Report	
Output 1.5 National policies, guidelines and standards aligned to regional policy, standard and guideline.	Number of policies, guidelines and standards aligned to regional policies, standards and guidelines	None	5 E-waste policies, 5 E-waste regulations 5 E-waste standard		Annual report	

**Pillar 2 : Infrastructure for E-waste management in EACO member states**

Outcome 2: A rationalized and well distributed E-waste	Number of E-waste infrastructure in the region		1 Regional modern facility	2022		Availability of viable investors
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management infrastructure in the EACO member states						
<b>Output 2.1 :</b> Baseline survey on E-waste generation and volumes to inform priority e-waste management infrastructure in the EACO member states Conducted	Baseline survey report on e-waste generation and volumes available	None	Survey Reports	2018		Availability of funds
<b>Output 2.2: E-waste</b> management infrastructure requirements analysis is conducted	Report on E-waste management infrastructure requirements	None	1 report produced	2018	EACO reports	Availability of funds
Output 2.3: An e-waste management infrastructure roll out plan is developed	Report on e-waste management roll out plan	None	1report produced	2018	EACO reports	Continued political support
Output 2.4 Appropriate mechanisms for	No of collectors and transporters	None	200 collectors and	2022	Certificate of participation	Commitment of stakeholder

collection, transportation and disposal of e-waste are established	trained.		transporters trained			s
	No. collection centers/ point established in member states	None	30 environmentally friendly collection centres/ point established ( at least 5 in each country)	2022	EACO reports	Availability of funds
	Tons of e-waste properly collected	None	40,000 tons of e-waste collected for proper treatment	2022	EACO report	
Output 2.5 Facilitation for the development of a regional modern dismantling and recovery facility within the EACO member states is provided	Business plan for the regional facility available	None	1Business plan	2018	EACO	Availability of funds
<b>Pillar 3: Resource Mobilization for proper e-waste management</b>						
Outcome 3: A comprehensive resource	Availability of a comprehensive	None	Resource mobilization mechanism		EACO Report	Continued commitment and good

mobilization mechanism for the e-waste management in EACO member states	e resource mobilization mechanism					will from Government
	Total amount of funds mobilized	0			EACO Report	
	Total amount invested in e-waste management by the private sector	0			EACO Report	
Output 3.1 : Regional E-waste resource mobilization strategy developed and implemented	A resource mobilization strategy in place and functional	None	1 mobilization strategy	2018	EACO Report	Continued commitment from stakeholders
Output 3.2 EACO e-waste fund is established to collect EPR fees, ARF individual, corporate and donor contributions	Availability of feasibility study report	None	Feasibility report	2017	EACO Report	
	E-waste fund in place and functional	None	E-waste fund	2022	EACO Report	
Output 3.3 EEE producers/retailers engaged in	Total amount committed to the e-waste fund	None	At least 500,000 USD	2022	EACO report	Commitment of producers

strategic partnerships including financing the e-waste collection, transportation and treatment through the extended producer responsibility and advanced recycling fee						

**Pillar 4 : Research, M&E and Capacity building**

Outcome 4 : An established research, M&E system, innovation as well as developed capacity in e-waste management		TBD			
	Number of reports generated from the M&E system	None	20 quarterly reports 5 Annual reports 1 Mid-term report 1 final evaluation report	2022	
Output 4.1 E-waste management is mainstreamed in educational curriculum at	Availability of e-waste mainstreaming guideline	None	1 regional curriculum mainstreaming guideline	2018	
	No of curriculum	None	3 curriculum ( primary ,	2022	

various levels especially in technical school	with e-waste incorporated		secondary and tertiary ) in each country			
Output 4.2 The e-waste strategy is monitored and evaluated	Availability of strategy mid-term and final review reports	None	1 midterm report 1 final report	2019 2022		
Output 4.3: National e-waste management initiatives in all member states are monitored and evaluated	Availability of national evaluation reports	None	1 midterm report 1 final report	2019 2022		

**Pillar 5: Coordination and institutional alignment**

Outcome 5: EACO E-waste coordination structures at regional and national levels are strengthened	Availability of financial support for the E-waste Regional, national committee and WG10	E-waste Regional and national steering committee in place WG 10	XX+500,000 USD	2022	EACO reports	Political will Continued  Continued commitment of key institutions
	% of physical implementation of the strategy	0%	100% (annually 20%)	2022	EACO reports	

Output 5.1: E-waste regional steering committee operations and functions supported for effective coordination of the implementation of the regional e-waste strategic plan	Allocated resource to the operations and functions of the steering committee (National and regional) Number of steering committee meeting held.	20,000 USD	500,000 USD	2022	EACO reports	
Output 5.2: A Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), is established	Regional Producer association (RPA) is in place and functional Number of producers registered to the association	None  None	1 Regional Producer association  At least 50 producers	2022  2022	EACO report	
Output 5.3 : A communication and stakeholder	communication and	None	1 Communication and stakeholder	2019	EACO reports	

engagement strategy on e-waste management is developed	stakeholder engagement strategy is in place		engagement strategy			
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**ANNEX 6  
COUNTRY STATUS**

**KENYA**

- NATIONAL STEERING COMMITTEE IN PLACE

**Uganda**

- NATIONAL STEERING COMMITTEE IN PLACE

**Rwanda**

- NATIONAL STEERING COMMITTEE IN PLACE

**Burundi**

- NATIONAL STEERING COMMITTEE IN PLACE

**Tanzania**

- NATIONAL STEERING COMMITTEE IN PLACE